RAW SEQUENCE LISTING

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Application Serial Number: _____ 09/591,632-D

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Date Processed by STIC: _____ 03/27/2006

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PATENT APPLICATION: US/09/591,632D   TIME: 09:53:48

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 3 <110> APPLICANT: Lindquist, et al.
 5 <120> TITLE OF INVENTION: RECOMBINANT PRION-LIKE GENES AND PROTEINS
 6        AND MATERIALS AND METHODS COMPRISING SAME
 8 <130> FILE REFERENCE: 30554/34978A
10 <140> CURRENT APPLICATION NUMBER: US 09/591,632D
11 <141> CURRENT FILING DATE: 2000-06-09
13 <150> PRIOR APPLICATION NUMBER: US 60/138,833
14 <151> PRIOR FILING DATE: 1999-06-09
16 <160> NUMBER OF SEQ ID NOS: 70
18 <170> SOFTWARE: PatentIn version 3.3
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 3321
22 <212> TYPE: DNA
23 <213> ORGANISM: Saccharomyces cerevisiae
26 <220> FEATURE:
27 <221> NAME/KEY: CDS
28 <222> LOCATION: (739)..(2796)
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51 accaaagctc ccattgcttc tgaagagtgt agtgtatatt ggtacatctt ctcttgaaag     660
53 actccattgt actgtaacaa aaagcggttt cttcatcgac ttgctcggaa taacatctat     720
55 atctgcccac tagcaaca atg tcg gat tca aac caa ggc aac aat cag caa     771
56                       Met Ser Asp Ser Asn Gln Gly Asn Asn Gln Gln
57                         1               5                  10
59 aac tac cag caa tac agc cag aac ggt aac caa caa caa ggt ·aac aac     819
60 Asn Tyr Gln Gln Tyr Ser Gln Asn Gly Asn Gln Gln Gln Gly Asn Asn
61               15                  20                  25
63 aga tac caa ggt tat caa gct tac aat gct caa gcc caa cct gca ggt     867
64 Arg Tyr Gln Gly Tyr Gln Ala Tyr Asn Ala Gln Ala Gln Pro Ala Gly
65             30                  35                  40
67 ggg tac tac caa aat tac caa ggt tat tct ggg tac caa caa ggt ggc     915
68 Gly Tyr Tyr Gln Asn Tyr Gln Gly Tyr Ser Gly Tyr Gln Gln Gly Gly
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71 tat caa cag tac aat ccc gac gcc ggt tac cag caa cag tat aat cct     963
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72 Tyr Gln Gln Tyr Asn Pro Asp Ala Gly Tyr Gln Gln Gln Tyr Asn Pro
73 60                  65                  70                  75
75 caa gga ggc tat caa cag tac aat cct caa ggc ggt tat cag cag caa    1011
76 Gln Gly Gly Tyr Gln Gln Tyr Asn Pro Gln Gly Gly Tyr Gln Gln Gln
77                  80                  85                  90
79 ttc aat cca caa ggt ggc cgt gga aat tac aaa aac ttc aac tac aat    1059
80 Phe Asn Pro Gln Gly Gly Arg Gly Asn Tyr Lys Asn Phe Asn Tyr Asn
81                  95                  100                 105
83 aac aat ttg caa gga tat caa gct ggt ttc caa cca cag tct caa ggt    1107
84 Asn Asn Leu Gln Gly Tyr Gln Ala Gly Phe Gln Pro Gln Ser Gln Gly
85             110                 115                 120
87 atg tct ttg aac gac ttt caa aag caa caa aag cag gcc gct ccc aaa    1155
88 Met Ser Leu Asn Asp Phe Gln Lys Gln Gln Lys Gln Ala Ala Pro Lys
89     125                 130                 135
91 cca aag aag act ttg aag ctt gtc tcc agt tcc ggt atc aag ttg gcc    1203
92 Pro Lys Lys Thr Leu Lys Leu Val Ser Ser Ser Gly Ile Lys Leu Ala
93 140                 145                 150                 155
95 aat gct acc aag aag gtt ggc aca aaa cct gcc gaa tct gat aag aaa    1251
96 Asn Ala Thr Lys Lys Val Gly Thr Lys Pro Ala Glu Ser Asp Lys Lys
97         .       160                 165                 170
99 gag gaa gag aag tct gct gaa acc aaa gaa cca act aaa gag cca aca    1299
100 Glu Glu Glu Lys Ser Ala Glu Thr Lys Glu Pro Thr Lys Glu Pro Thr
101             175                 180                 185
103 aag gtc gaa gaa cca gtt aaa aag gag gag aaa cca gtc cag act gaa    1347
104 Lys Val Glu Glu Pro Val Lys Lys Glu Glu Lys Pro Val Gln Thr Glu
105             190                 195                 200
107 gaa aag acg gag gaa aaa tcg gaa ctt cca aag gta gaa gac ctt aaa    1395
108 Glu Lys Thr Glu Glu Lys Ser Glu Leu Pro Lys Val Glu Asp Leu Lys
109     205                 210                 215
111 atc tct gaa tca aca cat aat acc aac aat gcc aat gtt acc agt gct    1443
112 Ile Ser Glu Ser Thr His Asn Thr Asn Asn Ala Asn Val Thr Ser Ala
113 220                 225                 230                 235
115 gat gcc ttg atc aag gaa cag gaa gaa gaa gtg gat gac gaa gtt gtt    1491
116 Asp Ala Leu Ile Lys Glu Gln Glu Glu Glu Val Asp Asp Glu Val Val
117             240                 245                 250
119 aac gat atg ttt ggt ggt aaa gat cac gtt tct tta att ttc atg ggt    1539
120 Asn Asp Met Phe Gly Gly Lys Asp His Val Ser Leu Ile Phe Met Gly
121             255                 260                 265
123 cat gtt gat gcc ggt aaa tct act atg ggt ggt aat cta cta tac ttg    1587
124 His Val Asp Ala Gly Lys Ser Thr Met Gly Gly Asn Leu Leu Tyr Leu
125             270                 275                 280
127 act ggc tct gtg gat aag aga act att gag aaa tat gaa aga gaa gcc    1635
128 Thr Gly Ser Val Asp Lys Arg Thr Ile Glu Lys Tyr Glu Arg Glu Ala
129     285                 290                 295
131 aag gat gca ggc aga caa ggt tgg tac ttg tca tgg gtc atg gat acc    1683
132 Lys Asp Ala Gly Arg Gln Gly Trp Tyr Leu Ser Trp Val Met Asp Thr
133 300                 305                 310                 315
135 aac aaa gaa gaa aga aat gat ggt aag act atc gaa gtt ggt aag gcc    1731
136 Asn Lys Glu Glu Arg Asn Asp Gly Lys Thr Ile Glu Val Gly Lys Ala
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137                  320                  325                  330
139 tac ttt gaa act gaa aaa agg cgt tat acc ata ttg gat gct cct ggt    1779
140 Tyr Phe Glu Thr Glu Lys Arg Arg Tyr Thr Ile Leu Asp Ala Pro Gly
141                  335                  340                  345
143 cat aaa atg tac gtt tcc gag atg atc ggt ggt gct tct caa gct gat    1827
144 His Lys Met Tyr Val Ser Glu Met Ile Gly Gly Ala Ser Gln Ala Asp
145              350                  355                  360
147 gtt ggt gtt ttg gtc att tcc gcc aga aag ggt gag tac gaa acc ggt    1875
148 Val Gly Val Leu Val Ile Ser Ala Arg Lys Gly Glu Tyr Glu Thr Gly
149          365                  370                  375
151 ttt gag aga ggt ggt caa act cgt gaa cac gcc cta ttg gcc aag acc    1923
152 Phe Glu Arg Gly Gly Gln Thr Arg Glu His Ala Leu Leu Ala Lys Thr
153 380                  385                  390                  395
155 caa ggt gtt aat aag atg gtt gtc gtc gta aat aag atg gat gac cca    1971
156 Gln Gly Val Asn Lys Met Val Val Val Val Asn Lys Met Asp Asp Pro
157                  400                  405                  410
159 acc gtt aac tgg tct aag gaa cgt tac gac caa tgt gtg agt aat gtc    2019
160 Thr Val Asn Trp Ser Lys Glu Arg Tyr Asp Gln Cys Val Ser Asn Val
161              415                  420                  425
163 agc aat ttc ttg aga gca att ggt tac aac att aag aca gac gtt gta    2067
164 Ser Asn Phe Leu Arg Ala Ile Gly Tyr Asn Ile Lys Thr Asp Val Val
165          430                  435                  440
167 ttt atg cca gta tcc ggc tac agt ggt gca aat ttg aaa gat cac gta    2115
168 Phe Met Pro Val Ser Gly Tyr Ser Gly Ala Asn Leu Lys Asp His Val
169          445                  450                  455
171 gat cca aaa gaa tgc cca tgg tac acc ggc cca act ctg tta gaa tat    2163
172 Asp Pro Lys Glu Cys Pro Trp Tyr Thr Gly Pro Thr Leu Leu Glu Tyr
173 460                  465                  470                  475
175 ctg gat aca atg aac cac gtc gac cgt cac atc aat gct cca ttc atg    2211
176 Leu Asp Thr Met Asn His Val Asp Arg His Ile Asn Ala Pro Phe Met
177                  480                  485                  490
179 ttg cct att gcc gct aag atg aag gat cta ggt acc atc gtt gaa ggt    2259
180 Leu Pro Ile Ala Ala Lys Met Lys Asp Leu Gly Thr Ile Val Glu Gly
181              495                  500                  505
183 aaa att gaa tcc ggt cat atc aaa aag ggt caa tcc acc cta ctg atg    2307
184 Lys Ile Glu Ser Gly His Ile Lys Lys Gly Gln Ser Thr Leu Leu Met
185              510                  515                  520
187 cct aac aaa acc gct gtg gaa att caa aat att tac aac gaa act gaa    2355
188 Pro Asn Lys Thr Ala Val Glu Ile Gln Asn Ile Tyr Asn Glu Thr Glu
189          525                  530                  535
191 aat gaa gtt gat atg gct atg tgt ggt gag caa gtt aaa cta aga atc    2403
192 Asn Glu Val Asp Met Ala Met Cys Gly Glu Gln Val Lys Leu Arg Ile
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195 aaa ggt gtt gaa gaa gaa gac att tca cca ggt ttt gta cta aca tcg    2451
196 Lys Gly Val Glu Glu Glu Asp Ile Ser Pro Gly Phe Val Leu Thr Ser
197              560                  565                  570
199 cca aag aac cct atc aag agt gtt acc aag ttt gta gct caa att gct    2499
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203 att gta gaa tta aaa tct atc ata gca gcc ggt ttt tca tgt gtt atg          2547
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207 cat gtt cat aca gca att gaa gag gta cat att gtt aag tta ttg cac          2595
208 His Val His Thr Ala Ile Glu Glu Val His Ile Val Lys Leu Leu His
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211 aaa tta gaa aag ggt acc aac cgt aag tca aag aaa cca cct gct ttt          2643
212 Lys Leu Glu Lys Gly Thr Asn Arg Lys Ser Lys Lys Pro Pro Ala Phe
213 620                 625                 630                 635
215 gct aag aag ggt atg aag gtc atc gct gtt tta gaa act gaa gct cca          2691
216 Ala Lys Lys Gly Met Lys Val Ile Ala Val Leu Glu Thr Glu Ala Pro
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219 gtt tgt gtg gaa act tac caa gat tac cct caa tta ggt aga ttc act          2739
220 Val Cys Val Glu Thr Tyr Gln Asp Tyr Pro Gln Leu Gly Arg Phe Thr
221         655                 660                 665
223 ttg aga gat caa ggt acc aca ata gca att ggt aaa att gtt aaa att          2787
224 Leu Arg Asp Gln Gly Thr Thr Ile Ala Ile Gly Lys Ile Val Lys Ile
225         670                 675                 680
227 gcc gag taa atttcttgca aacataagta aatgcaaaca caataatacc               2836
228 Ala Glu
229         685
231 gatcataaag cattttcttc tatattaaaa aacaaggttt aataaagctg ttatatatat      2896
233 atatatatat atagacgtat aattagttta gttctttttg taccatatac cataaacaag      2956
235 gtaaacttca cctctcaata tatctagaat ttcataaaaa tatctagcaa ggtttcaact      3016
237 ccttcaatca cgttttcatc ataacccttc cccggcgtta tttcagaatg tgcaaaatct      3076
239 attagtgaca tggaactcaa agaaccagtt gttttttttgt cctttggtcc ttcgctgctt     3136
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243 aaatcatctc gcataagttt gtcaacatca tttagtaatt cccatcgctc cgggtctcct      3256
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262             20                  25                  30
265 Gln Ala Tyr Asn Ala Gln Ala Gln Pro Ala Gly Gly Tyr Tyr Gln Asn
266         35                  40                  45
269 Tyr Gln Gly Tyr Ser Gly Tyr Gln Gln Gly Gly Tyr Gln Gln Tyr Asn
270     50                  55                  60
273 Pro Asp Ala Gly Tyr Gln Gln Gln Tyr Asn Pro Gln Gly Gly Tyr Gln
274 65                  70                  75                  80
277 Gln Tyr Asn Pro Gln Gly Gly Tyr Gln Gln Gln Phe Asn Pro Gln Gly
278             85                  90                  95
281 Gly Arg Gly Asn Tyr Lys Asn Phe Asn Tyr Asn Asn Asn Leu Gln Gly
282             100                 105                 110
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285 Tyr Gln Ala Gly Phe Gln Pro Gln Ser Gln Gly Met Ser Leu Asn Asp
286         115                 120                 125
289 Phe Gln Lys Gln Gln Lys Gln Ala Ala Pro Lys Pro Lys Lys Thr Leu
290         130                 135                 140
293 Lys Leu Val Ser Ser Ser Gly Ile Lys Leu Ala Asn Ala Thr Lys Lys
294 145                 150                 155                 160
297 Val Gly Thr Lys Pro Ala Glu Ser Asp Lys Lys Glu Glu Glu Lys Ser
298                 165                 170                 175
301 Ala Glu Thr Lys Glu Pro Thr Lys Glu Pro Thr Lys Val Glu Glu Pro
302                 180                 185                 190
305 Val Lys Lys Glu Glu Lys Pro Val Gln Thr Glu Glu Lys Thr Glu Glu
306         195                 200                 205
309 Lys Ser Glu Leu Pro Lys Val Glu Asp Leu Lys Ile Ser Glu Ser Thr
310         210                 215                 220
313 His Asn Thr Asn Asn Ala Asn Val Thr Ser Ala Asp Ala Leu Ile Lys
314 225                 230                 235                 240
317 Glu Gln Glu Glu Glu Val Asp Asp Glu Val Val Asn Asp Met Phe Gly
318                 245                 250                 255
321 Gly Lys Asp His Val Ser Leu Ile Phe Met Gly His Val Asp Ala Gly
322                 260                 265                 270
325 Lys Ser Thr Met Gly Gly Asn Leu Leu Tyr Leu Thr Gly Ser Val Asp
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334 305                 310                 315                 320
337 Asn Asp Gly Lys Thr Ile Glu Val Gly Lys Ala Tyr Phe Glu Thr Glu
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345 Ser Glu Met Ile Gly Gly Ala Ser Gln Ala Asp Val Gly Val Leu Val
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349 Ile Ser Ala Arg Lys Gly Glu Tyr Glu Thr Gly Phe Glu Arg Gly Gly
350         370                 375                 380
353 Gln Thr Arg Glu His Ala Leu Leu Ala Lys Thr Gln Gly Val Asn Lys
354 385                 390                 395                 400
357 Met Val Val Val Val Asn Lys Met Asp Asp Pro Thr Val Asn Trp Ser
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365 Ala Ile Gly Tyr Asn Ile Lys Thr Asp Val Val Phe Met Pro Val Ser
366         435                 440                 445
369 Gly Tyr Ser Gly Ala Asn Leu Lys Asp His Val Asp Pro Lys Glu Cys
370         450                 455                 460
373 Pro Trp Tyr Thr Gly Pro Thr Leu Leu Glu Tyr Leu Asp Thr Met Asn
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378                 485                 490                 495
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VERIFICATION SUMMARY   DATE: 03/27/2006
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